Undergraduate Curriculum
in
Special Care Dentistry

Statement of Intent

"It is no longer tenable, within the framework of the Disability Discrimination Act [1], the Human Rights Act [2] as well as the rapidly changing demographic trends in the population, that new graduates can qualify in ignorance of the impact of these for the wider community they serve (Nunn et al. 2004)." [3]

Graduates in Dentistry are increasingly likely to see a significant number of patients with special health care needs in the course of their practising lives [4].Their confidence and willingness to provide care for this diverse group of patients is closely correlated to the quality and content of their undergraduate education in Special Care Dentistry (SCD).[5, 6]

Leading institutions internationally are now embedding teaching and learning in SCD within their curricula, in order to provide students with the knowledge, skills and attitudes to meet the oral health needs of vulnerable groups within their communities.

In response to requests from educators worldwide, the International Association for Disability and Oral Health (iADH) has initiated the development of undergraduate curriculum guidance in SCD through a consensus process involving leading experts in SCD from 32 countries.

iADH

This curriculum document provides evidence-based learning outcomes [7,] designed to be student-centred and with the flexibility to be easily imported into contemporary dental curricula. Many of the core skills in SCD are transferable across the entire dental curriculum and encourage a patient-centred approach to learning. It is envisaged that these will be adopted via an incremental approach to enhance a dynamic, evolving curriculum.

The learning outcomes are designed to be readily adapted to conform to the profiles and competencies documents of global educational associations such as the Association for Dental Education in Europe (ADEE)[8,9] the American Dental Education Association (ADEA)[10], Asociacion de Facultades de Odontologia de la Republica Argentina (AFORA)[11] the Association of Canadian Faculties of Dentistry[12] and the South East Asia Association for Dental Education (SEAADE)[13] as well as meeting the requirements of professional regulatory bodies worldwide. The document also includes accompanying educational methodologies [14] [15] and appropriate assessments [9] [15] which will form the basis of lifelong learning for clinicians.

Given the rapidly changing demography of populations worldwide, dental professionals of the future need to be able to meet the challenges posed by the evolving landscape in health care needs. It is the responsibility of higher education institutions to ensure that, on qualification, the dental team are competent and confident to respond in a dynamic way to these challenges.

Dr Alison Dougall, Dr Clive Friedman, Dr Gabriella Scagnet and Dr Shelagh Thompson.
iADH Education Committee

www.iadh.org

CONTENTS

www.iadh.org

AUTHORS and ACKNOWLEDGMENTS

This document was written by Dr Alison Dougall, Dr Shelagh Thompson and Dr Denise Faulks.

It can be freely adapted and used for teaching and training purposes and should be appropriately referenced to the International Association of Disability and Oral Health via a Creative Commons license.[16]

The authors would like to thank the members of the working party for their valuable contribution to the creation of this document : Dr Sharat Chandra Pani (Saudi Arabia), Dr Clive Friedman (Canada), Dr Wen-Lin Chai (Malaysia), Dr Ellie Heidari (UK), Dr Maureen Munnelly-Romer (USA), Dr Gabriella Scagnet (Argentina), Dr Juan Pablo Rodriguez (Mexico), Dr Graeme Ting (New Zealand), and Professor June Nunn (Ireland).

The authors would also like to thank and acknowledge the work, time and commitment of the iADH-SCiPE expert panel during the consensus process [7], and all the stakeholders and organisations who have been involved in consultation during the development of this document.

www.iadh.org

iADH

THE UNDERGRADUATE CURRICULUM IN SPECIAL CARE DENTISTRY

The undergraduate curriculum in Special Care Dentistry (SCD) is defined in statements of learning outcomes and includes examples describing learning and teaching methods, assessment and feedback. It is designed to provide undergraduates with theoretical knowledge and clinical experience and to build skills, positive attitudes and behaviours desirable in SCD. Educators in individual countries should use the learning outcomes to design the content of their own programmes according to local needs and/or curriculum guidelines. It is envisaged that this curriculum will be subject to continuous quality enhancement based on ongoing evaluation and feedback.

LEARNING OUTCOMES

The learning outcomes in the SCD curriculum which follow relate specifically to people requiring Special Care Dentistry*, those with a disability or activity restriction that directly or indirectly affects their oral health, within the personal and environmental context of the individual [17].

* see glossary for more information

www.iadh.org

Competencies in SCD

Domain 1:   The Scope of Special Care Dentistry

Domain 2   Access and Barriers to oral health for people with disability and other marginalised groups

Domain 3:   Consent for people requiring special care

Domain 4:   Communication skills in special care dentistry

Domain 5:   Impact of impairments, disabilities and systemic conditions on oral health and oral function

Domain 6:   Clinical Management of patients requiring Special Care Dentistry

www.iadh.org

Domains normally associated with dental education have been used to group the learning outcomes in the tables that follow; namely, knowledge (cognitive), skills (psychomotor), attitudes and behaviours (affective), many of the skills being transferable across the whole undergraduate curriculum. [8-15,18] A comprehensive glossary is available at the end of this document to aid understanding of the terminology and language used.

Each of the learning outcomes should be prefaced with:

> *'On completion of undergraduate education in Special Care Dentistry*
>
> *the student should … / be able to (active verb)'*

1. SCOPE of SPECIAL CARE DENTISTRY

1A - KNOWLEDGE	1B - SKILLS	1C - ATTITUDES BEHAVIOURS
Describe the cultural, legal and social context of people with disability and other marginalised groups.	Discuss epidemiology, terminology, concepts and classifications of human function, disability and health.	Demonstrate positive attitudes in relation to human difference and diversity.

2. ACCESS & BARRIERS TO ORAL HEALTH FOR PEOPLE WITH DISABILITY & OTHER MARGINALIZED GROUPS

2A - KNOWLEDGE	2B - SKILLS	2C - ATTITUDES BEHAVIOURS
Identify the social determinants of health in relation to health inequalities in people with disability and other marginalised groups.	Recognise barriers and facilitators to oral health for people with disability and other marginalised groups.	Use social and environmental facilitators to oral health and oral health promotion within service structure.

3. CONSENT FOR PEOPLE REQUIRING SPECIAL CARE

3A - KNOWLEDGE	3B - SKILLS	3C - ATTITUDES BEHAVIOURS
Outline the appropriate consent process when providing care for people with communication, cognitive or sensory impairments.	Obtain valid consent for oral health procedures appropriately.	Demonstrate respect for patient autonomy and the role of the family and caregivers.

www.iadh.org

4. COMMUNICATION SKILLS IN SPECIAL CARE DENTISTRY

4A - KNOWLEDGE	4B - SKILLS	4C - ATTITUDES BEHAVIOURS
Describe appropriate methods of communication for people with cognitive, sensory and/or other communication impairments.	Use appropriate methods of communication for people with cognitive, sensory and/or other communication impairments.	Demonstrate culturally sensitive and inclusive language with patients, colleagues and care givers.

5. IMPACT OF IMPAIRMENTS, DISABILITIES & SYSTEMIC CONDITIONS ON ORAL HEALTH & ORAL FUNCTION

5A - KNOWLEDGE	5B - SKILLS	5C - ATTITUDES BEHAVIOURS
Describe common impairments, disabilities and systemic conditions in relation to their impact on oral health and oral function.	Identify the key elements of impairments, disabilities and systemic conditions that may impact on oral health or oral function for individual patients.	Consider the need for and benefits of inter-professional liaison in patient assessment.

6.CLINICAL MANAGEMENT OF PATIENTS REQUIRING SPECIAL CARE DENTISTRY

| 6A - KNOWLEDGE	6B - SKILLS	6C - ATTITUDES BEHAVIOURS
(i) Describe the factors (medical, social and environmental) that impact on risk assessment and treatment planning for individual patients requiring special care.	(i) Design oral health education for individual patients and their caregivers.	(i) Recognise the value of teamwork in the management for patients requiring special care.
(ii) Discuss behavioural and pharmacological approaches that facilitate dental treatment for individual patients requiring special care dentistry (according to local guidelines and protocols).	(ii) Provide simple clinical treatment using appropriate facilitation techniques for patients requiring special care, likely to present to a primary care service.	(ii) Take responsibility for referring or arranging care for patients with more complex needs.

LEARNING AND TEACHING METHODOLOGIES

Undergraduate students would be expected to acquire knowledge, skills, attitudes and behaviours through a variety of learning environments to enhance their critical thinking in relation to SCD. Learning and teaching methods will vary between countries and depend on the educational strategies of individual dental schools or faculties and the available resources for teaching. To aid educators the curriculum document includes examples of 'good practice' to create student-centred learning environments, where the learning outcomes of the SCD curriculum could be achieved.

A variety of learning and teaching methods will deliver knowledge that promotes positive attitudes towards disability and may include lectures, seminars, blended learning, problem-based learning, case-based learning, role play and simulations. Students familiar with interactive learning will engage with multimedia and virtual learning environments.

Importantly, the SCD curriculum aims to ensure experiential learning by hands-on, simple clinical care for patients with disabilities. This should take place in a variety of clinical settings, encouraging workplace-based learning with guided chair-side teaching and mentoring. The curriculum is designed to encourage the development of reflective clinical practice and skills acquisition and will develop competence in facilitating oral healthcare for people with disabilities.

www.iadh.org

International Classification of Functioning, Disability and Health (ICF)

The SCD curriculum encourages the learner and educators within dental schools or faculties to adopt the principles of the International Classification of Functioning (WHO)[17]. Adopting the ICF within educational practice will aid understanding of human functioning and disability and more ICF resources are listed in the 'Resources and References' sections of this document. The ICF model describes universal human experience in relation to a health condition, functioning and contextual factors and may be illustrated as follows:

www.iadh.org
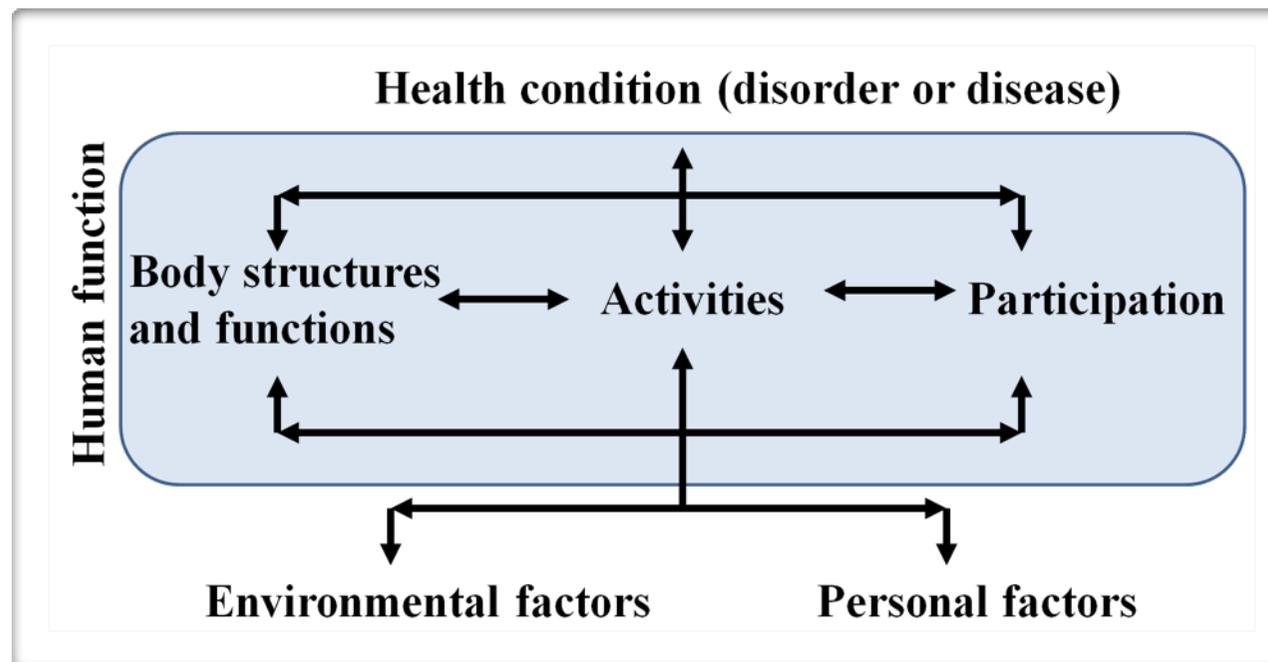
CASE-BASED LEARNING EXEMPLAR

The SCD curriculum encourages educators within dental schools or faculties to develop a variety of methodologies such as case-based learning because undergraduate exposure to vulnerable patients may be limited during clinical training. Case-based learning directs teaching focus towards the patient as a whole rather than as a model of a medical condition. The following scenario has been chosen to illustrate this principle throughout this document and represents a patient likely to present to primary care services and whose context is suitable for the undergraduate student.

E for Erica

Female, 18 years old. Erica has mild cerebral palsy with hemiplegia and a slight hearing impairment. She takes carbamazepine, but has not had an epileptic seizure for over two years. She has normal intellectual function and has just started at university. She lives in a studio apartment on campus and goes home regularly by train to her parents and younger brother.

Erica finished a course of fixed orthodontic treatment last year and feels that her facial asymmetry has improved. Her mouth opening is restricted, her speech is altered but clear. She complains of pain and dental cavities on the hemiplegic side and reports avoiding tough or chewy foods.

www.iadh.org

Examples of teaching specific learning objectives within an ICF model

The following pages offer some examples of how a case-based learning and role-play session may be structured using the imaginary '*E for Erica*' case example. The session could be delivered before students provide oral health education or simple clinical treatment for patients with disability.

The teaching and learning objectives can be mapped to at least four of the learning outcomes shown in the tables shown above (e.g. 2B, 5B, 6A, 6B). Using this patient-centred approach, the skills and knowledge gained are transferable across the entire curriculum:

Learning objective 2B: Recognise barriers and facilitators to oral health for *Erica*

Learning objective 5B :   Identify the key elements of impairments, disability and systemic conditions that may impact on oral health or oral function for *Erica*

Learning objective 6A: Describe the factors (medical, social and environmental) that impact on risk assessment and treatment planning for *Erica*

Learning objective 6B :   Design oral health education for *Erica*

www.iadh.org

Examples of teaching methodologies within an ICF model

Teaching method: **Case-based learning session followed by group discussion**

Revision of ICF terms, vocabulary and presentation of *'E for Erica'* case study.

Students work together in small groups to build up an imaginary 'ICF Health Profile' of the patient.

Presentation and feedback of the ICF profile to the whole group.

Identification of the potential factors that may impact on oral health for this patient.

Discussion to include potential facilitators to oral health, risk assessment and clinical management.

Teaching method: **Role-play exercise in pairs followed by group discussion**

Students are asked to simulate tailored oral health education for *Erica.*

Educators provide toothbrush, mirror, equipment and aids as appropriate, models for demonstration of techniques and a suitable environment to make the scenario seem as real as possible.

Discussion following the task identifies physical, functional, social and environmental barriers and facilitators to Erica's oral hygiene and maintenance of a healthy diet. Educators encourage exploration of emotions and attitudes of students towards the task.

www.iadh.org

Case-based Learning - using an ICF Profile

Key elements that may impact on *Erica's* oral health, identified by students in her ICF profile, might include :

Elements with potential to impact on oral health	Examples relating specifically to 'E for Erica'
Health Condition (disorder or disease)	Cerebral Palsy, epilepsy, side effects of medication, risk of medical emergency.
Impaired Body Structure	Upper limbs, teeth, gingivae, tongue.
Impaired Body Function	Upper limb function, muscle force, oro-facial muscle function, control of voluntary movement, hearing.
Activity Limitation	Ability to chew, swallow, clear food from affected side, brush teeth effectively.
Participation Restriction	Ability to walk long distances, ability to access dental care, ability to take part in social meals with friends.
Environmental Context	Medication, transport, personal/social assistance, financial independence.

17

www.iadh.org

Case-Based Learning - Discussion and Reflection

Further exploration of additional factors that might impact on Erica's oral health can be encouraged during interactive, reflective discussion by asking the question...

Who is your patient ?

Patient functioning

Anxiety, communication, comprehension, motivation, priorities…

Social context

Independent living, no monitoring of toothbrushing in adulthood, change of diet.

Environmental context

Family no longer accompany to appointments, financial burden of treatment, transport to appointments.

Potential facilitators within service structure

Motivational approaches towards oral health promotion, oral health education tailored to take account of hemiplegia and activity restriction, access to general dental care to prevent deterioration of dentition, collaboration with hygienist near place of residence for assistance to maintain oral health, information on student financial aid schemes.

Potential attitudinal structural barriers

Attitudes regarding diversity may reduce access to local care options. Dental Teams may lack confidence or assume that Erica needs specialist services by virtue of her diagnosis.

www.iadh.org

ASSESSMENT AND FEEDBACK

Assessment and feedback are a key to the development of those skills, attitudes and behaviours that are essential on completion of undergraduate education and that will encourage deeper and lifelong learning in SCD. Various assessment methods can be used to assess the learning outcomes of the undergraduate curriculum in SCD and, as with teaching and learning, will vary according to the individual undergraduate dental schools or faculties.

A variety of assessments allows triangulation to ensure that learning outcomes are met, inevitably with some overlap in other areas of the undergraduate curriculum. Formative and summative assessments of the desired learning outcomes in SCD would be expected to form part of the overall assessment strategy for undergraduate dental education and mapped within an overall assessment blueprint.

Innovative assessments, including on-line assessments, may contribute to traditional methods of assessment such as essays or written reports, short answer questions (SAQs), single best answer questions (SBAs), multiple choice questions (MCQs) and extended matching questions (EMQs) to test knowledge. Skills and behaviours can be assessed using objective structured clinical examinations (OSCEs) and through workplace-based assessments (WBPAs) where people with disability are included in the student case mix. Use of electronic or paper-based portfolios encourages self-reflection and allows tutor feedback enhancing the learning process.

ASSESSMENT of KNOWLEDGE, SKILLS AND ATTITUDES

All assessments should be valid, reliable, feasible and fair and should have a positive educational impact on the student's learning and development. As with earlier learning and teaching strategies, the SCD curriculum also gives examples of 'good practice' to guide educators in creating meaningful assessments that demonstrate that the learning outcomes have been achieved. An emphasis on student-centred formative assessment is encouraged to enhance the learning experience, whilst appreciating the need for summative assessment to satisfy stakeholders.

Examples of summative assessment questions to assess knowledge mapped to SCD learning outcome 5A:

Single Best Answer Question:

Which of the following statements about cerebral palsy (CP) is **FALSE**?

(1) it is a form of intellectual disability* (best false statement)   (2) it is associated with sensory impairments

(3) it is a congenital neurological disorder   (4) it is associated with malocclusion

(5) it is associated with epilepsy

Short Answer Question :

A 23 year old student who has cerebral palsy and well-controlled epilepsy attends your practice, having fallen and fractured his anterior incisor when transferring himself into his wheelchair that morning. He has no other injuries. On examination you notice that he has a class 2 fracture into dentine of tooth 21. He has not attended a dentist for 5 years; his oral hygiene is poor with generalised hard and soft deposits. How might you facilitate care and promote better oral health for this man?

www.iadh.org

ASSESSMENT OF TRANSFERABLE KNOWLEDGE, SKILLS AND ATTITUDES

The following examples show how more innovative assessments can be mapped to multiple learning outcomes from the SCD and the generic curriculum with skills and attitudes assessed simultaneously at key stages of student progression.

Assessment of SCD Learning objectives e.g.

1C: Demonstrate positive attitudes in relation to human difference and diversity.

4B: Modify appropriate methods of communication for people with cognitive, sensory and/or other communication impairments.

4C :   Demonstrate culturally sensitive and inclusive language with patients, colleagues and care givers.

6B :   Design oral health education for individual patients and/or their caregivers.

(1) Clinical portfolio of experience / log-diary

Formative assessment which includes reflection and guidance by a mentor or tutor, following provision of an episode of simple clinical care for a patient with a physical disability at any stage of training. (1C, 4C, 6Bii)

(2) Objective Structured Clinical Examination (OSCE)

Summative Assessment, before graduation, where the student is asked to design and communicate an effective oral health promotion plan for a patient or actor who has a sensory impairment. (1C, 4B, 4C, 6Bi)

iADH LEARNING RESOURCES

iADH website will become a useful and effective resource to aid educators in SCD and will encourage patient-centred teaching and learning in this emerging area of dentistry. Through sharing of open educational resources via mechanisms such as Creative Commons [16] a database of teaching, learning and assessment resources will be assembled over time. This will include essential case-based learning examples with associated ICF Profiles for diverse and vulnerable individuals within the expected competency level of a dental professional on graduation.

For more information regarding the curriculum and other iADH Education activities please contact: scipe@iadh.org or visit the iADH Website www.iadh.org

ICF Beginners Guide and Online training tool

http://www.who.int/classifications/icf/training/icfbeginnersguide.pdf

http://p.ideaday.de/104.2/icf/

Developing International Networks for Oral Heath (DINOH)

http://www.dinoh.org

www.iadh.org

REFERENCES

1. Disability Discrimination Act. The Disability Discrimination Act 1995. Her Majesty's Stationery Office. London, 1995.
   www.disability.gov.uk/dda

2. Human Rights Act. The Human Rights Act 1998. Her Majesty's Stationery Office 1998. London 1998.
   www.hmso.gov.uk/acts/acts1998

3. Nunn J, Boyle C, Thompson S, Wilson K, Developing an undergraduate curriculum in Special Care Dentistry
   Working Group of the Teachers Group of BSDH July 2004 http://www.bsdh.org.uk/guidelines.html

4. Faulks, D., Freedman, L., Thompson, S., Sagheri, D. and Dougall, A. (2012), The value of education in special care
   dentistry as a means of reducing inequalities in oral health. Eur J Dent Educ. 2012 Nov;16(4):195-201.
   (abstract p.25 of this document)

5. Chavez EM, Subar PE, Miles J, Wong A, Labarre EE, Glassman P. Perceptions of predoctoral dental education and
   practice patterns in special care dentistry. J Dent Educ. 2011 Jun;75(6):726-32.

6. Sherman CM, Anderson RD. Special needs education in Canadian dental school curriculum: Is there enough?
   J Can Dent Assoc 2010; 76:a11

7. Dougall A, Chandra Pani S, Thompson S, Faulks D, Romer M, Nunn J. Developing a dental undergraduate curriculum in
   Special Care Dentistry - by consensus (in press, 2012) European Journal of Dental Eduction (abstract p.26 of this doc)

8. Cowpe J, Plasschaert A, Harzer W, Vinkka-Puhakka H, Walmsley AD. Profile and competences for the graduating
   European dentist - update 2009. Eur J Dent Educ. 2010 Nov;14(4):193-202.

www.iadh.org

9.   Manogue M, McLoughlin J, Christersson C, Delap E, Lindh C, Schoonheim-Klein M, et al. Curriculum structure, content, learning and assessment in European undergraduate dental education - update 2010. Eur J Dent Educ. 2011 Aug;15 (3): 133-41.

10.   American Dental Education Association. ADEA policy statements C. Curriculum, Curriculum Content, No. 11. In ADEA 2006 House of Delegates manual. J Dent Educ. 2006;70(6):744-56

        www.adea.org/about_adea/governance/Pages/PolicyStatements.aspx

11.   Asociacion de Facultades de Odontología de la República Argentina (AFORA) www.afora.org.ar

12.   Association of Canadian Faculties of Canada. Competencies for a beginning dental practioner in Canada 2005. http://www.acfd.ca/en/publications/ACFD-Competencies.htm#Definition

13.   South East Asia Association of Dental Education - peer review process http://www.seaade.org/Peer%20Review/Files/SEAADE%20-%20Application%20Form%20for%20Visit.pdf

14.   Chambers, D.W. (1994). Competencies: a new view of becoming a dentist. *J Dent Education* (58) 342-345.

15.   Association for Dental Education in Europe Task Force II, Appendix 2 – Assessment. 2010 Update Curriculum Structure, Content, Learning and Assessment in European Undergraduate Dental Education www.adee.org/cms/uploads/adee/Task_Force_II_APPENDIX_2_Assessment1.pdf

16.   Best Practices for Marking Content with Creative Commons Licensing. www.creativecommons.org

17.   Faulks D, Hennequin M. Defining the population requiring special care dentistry using the International Classification of Functioning, Disability and Health-a personal view. J.Disabil Oral Health 2006: 7: 143.

18.   Bloom B. S. (1956) *Taxonomy of Educational Objectives, Handbook I: The Cognitive Domain.* New York: David McKay Co Inc. International Classification of Functioning (ICF) World Health Organisation , Geneva, Switzerland 2001.

www.iadh.org

KEY REFERENCES DIRECTLY RELATED TO DEVELOPMENT OF SCD CURRICULUM

The value of education in special care dentistry as a means of reducing inequalities in oral health.

Faulks, D., Freedman, L., Thompson, S., Sagheri, D. and Dougall, A.

Eur J Dent Educ. 2012 Nov;16(4):195-201.

Abstract

People with disability are subject to inequality in oral health both in terms of prevalence of disease and unmet healthcare needs. Over 18% of the global population is living with moderate to severe functional problems related to disability, and a large proportion of these persons will require Special Care Dentistry at some point in their lifetime. It is estimated that 90% of people requiring Special Care Dentistry should be able to access treatment in a local, primary care setting. Provision of such primary care is only possible through the education and training of dentists. The literature suggests that it is vital for the dental team to develop the necessary skills and gain experience treating people with special needs in order to ensure access to the provision of oral health care. Education in Special Care Dentistry worldwide might be improved by the development of a recognised academic and clinical discipline and by providing international curricula guidelines based on the International Classification of Functioning, Disability and Health (ICF, WHO). This article aims to discuss the role and value of promoting and harmonising education in Special Care Dentistry as a means of reducing inequalities in oral health.

www.iadh.org

Developing a dental undergraduate curriculum in Special Care Dentistry - by consensus

Dougall A, Chandra Pani S, Thompson S, Faulks D, Romer M, Nunn J.

Abstract

It has been reported that health care providers often lack the skills set to provide care for people with disabilities, leading to inequalities in health and reduced access to healthcare. Newly graduating dentists are likely to see a significant number of patients with special health care needs in the course of their practicing lives, however, there is evidence of national and international variation in the availability and of education and training at the undergraduate level in this important, emerging area. The quality and content of under-graduate education in Special Care Dentistry has been shown to correlate with students' confidence, and their expressed willingness, towards providing care for patients with special healthcare needs in their future practice. The aim of this study was to use information from a three-round Delphi process, continued into a face to face meeting, in order to establish consensus on what constitutes the essential core knowledge, skills and attitudes required by a newly qualified dentist, so that they are able to deliver patient care to diverse populations following graduation. A high level of agreement was established amongst an international panel of experts from 30 countries. The final core items identified by the panel showed a paradigm shift away from the traditional emphasis on medical diagnosis within a curriculum towards an approach based on the International Classification of Functioning (ICF) with patient-centred treatment planning for people with disabilities and special health care needs according to function or environment. Many of the core skills identified by the panel are transferable across a curriculum, and should encourage a person-centred approach to treatment planning based on the function, needs and wishes of the patient rather than their specific diagnosis.

www.iadh.org

MEMBERS OF THE UNDERGRADUATE EXPERT PANEL

Dr Timucin Ari	University of Schulich School of Medicine and Dentistry, London, Ontario, CANADA
Dr Stefan Axelsson	TAKO-Centre, Lovisenberg Diakonale Hospital,Oslo, NORWAY
Dr Najla Akbarali	KCL Dental Institute, UK
Dr Nadiya Al-Kindi	Ministry of Health, Muscat, SULTANATE OF OMAN
Dr Srivats Bharadwaj	Independent Specialist Practitioner
A/Prof. Mina Borromeo	University of Melbourne, AUSTRALIA
Dr Roland Blankenstein	Secretary of iADH 2006-2010
Dr Dionne Broers	ACTA, Amsterdam, HOLLAND
Prof. Alison Bullock	Cardiff School of Social Sciences, Cardiff University, WALES
Dr Wen-Lin Chai	University of Malaya, MALAYSIA
Dr Sharat Chandra-Pani	Riyadh College of Dentistry and Pharmacy, SAUDI ARABIA

www.iadh.org

Dr Blanaid Daly	King's College Dental Institute, London, ENGLAND
Dr Patricia Di Nasso	Fac. de Od. U.N. de Cuyo, Mendoza, ARGENTINA
Dr Cem Dogan	Çukurova University, Adana. TURKEY
Dr Alison Dougall	Dublin University Dental Hospital, Trinity College, Dublin, IRELAND
Dr Dimitris Emmanouil	University of Athens Dental School, Athens, GREECE
Dr Edith Falconi	ALODES, Lima, PERU
Dr Denise Faulks	University of Auvergne, Clermont Ferrand, FRANCE
Dr Laura Freedman	Irish Society for Disability and Oral Health, IRELAND
Dr Karen Gordon	BSDH, Specialist Advisory Committee for Specialist Training in SCD, UK
Dr Sue Greening	British Society for Disability and Oral Health (BSDH), UK
Dr Janet Griffiths	British Society of Gerodontology, UK
Dr Borge Hede	University of Copenhagen, DENMARK
Dr Ellie Heidari	King's College Dental Institute, London, ENGLAND
Prof. Martine Hennequin	University of Auvergne, Clermont Ferrand, FRANCE
Dr Shouji Hironaka	Showa University Shinagawa, Tokyo, JAPAN
Dr Volker Holthaus	German Dental Society for Patients with Disabilities, SGZBB, GERMANY
Prof. Shun-Te Huang	Kaohsiung Medical University, TAIWAN
Dr Clive Friedman	Clinical and Scientific Affairs Committee of the CDA, CANADA
Dr Jacob John	University of Malaya, Kuala Lumpar, MALAYSIA
Dr Jacobo Limeres Posse	School of Medicine and Dentistry. University of Santiago de Compostela. SPAIN
Dr Walter Lopresti	Fac. de Od. U.N. de Cuyo, Mendoza, ARGENTINA
Prof. Juan Pablo Loyola Rodriguez	San Luis Potosi University, MEXICO
Prof. Junichi Mega	Nihon University School of Dentistry at Matsudo, JAPAN
Dr Leda Mugayar	President of iADH 2010, BRAZIL
Dr Lesley Longman	Dental Sedation Teachers Group, UK
Dr Caoimhin MacGiolla Phadraig	Trinity College, Dublin, IRELAND
Prof. Colman McGrath	Faculty of Dentistry, University of Hong Kong, HONG KONG
Dr Jacinta McLaughlin	Dublin University Dental Hospital, Trinity College Dublin, IRELAND
Prof. Luc Martens	University of Ghent, BELGIUM
Dr Gustavo Molina	Catholic University of Cordoba, Cordoba, ARGENTINA
Prof. Mariana Morales-Chavez	Universidad Santa Maria Caracas, VENEZUELA

www.iadh.org

Dr Ruxandra Moraru	Romanian Association for Disability and Oral Health, ROMANIA
Prof. June Nunn	Dublin University Dental Hospital, Trinity College, Dublin, IRELAND
Dr Sheila Oliver	University Dental Hospital, Cardiff University, WALES
Dr Elena Pozzani	Special Care Department, ULSS 20-VERONA, ITALY
Dr Jose Reynado Figueiredo	Associação Brasileira de Odontologia para Pacientes com Necessidades Especiais,
Dr Maureen Romer	AT Still University, Arizona. USA
Dr Roberto Rozza	Italian Society of Oral Health and Disability, ITALY
Dr Sophia Saeed	The University of California, San Francisco, USA
Dr Darius Sagheri	University of Cologne, Cologne, GERMANY
Prof. Carlos Salinas	Medical University of South Carolina, USA
Dr Gabriella Scagnet	President of iADH 2010-2, University of Buenos Aires, ARGENTINA
Prof. Andreas Schulte	University of Heidelberg, GERMANY
Prof. Javier Silvestre Donat	Valencia University Dental School, SPAIN
Dr Oana Slusanschi	Carol Davila University of Medicine and Pharmacy, Bucharest, ROMANIA
Prof. Ilknur Tanboga	Marmara University, Dentistry Faculty, TURKEY
Dr Harsha Tejas	S. D. Dental College, Parbhani, INDIA
Dr Kevin Thompson	Faculty of General Practice, School of Medicine, Cardiff, WALES
Dr Shelagh Thompson	University Dental Hospital, Cardiff University, WALES
Dr Graeme Ting	ANZASND - Australian and New Zealand Academy of Special Needs Dentistry, NZ
Dr Inmaculada Tomas	School of Medicine and Dentistry. University of Santiago de Compostela. SPAIN
Dr Tom Turk	Secretary of iADH 2010-12.
Dr Danielle Viera Ferreira	Brazilian Association of Dentistry for Special Patients (ABOPE), BRAZIL
Dr Kathy Wilson	University of Newcastle, Newcastle-Upon-Tyne, ENGLAND
Prof. Nazia Yazdani	FMH College of Medicine and Dentistry, Shadman, Lahore. PAKISTAN
Dr Ted Zuidgeest	VBTGG , Dutch Society of Oral Health and Disability, HOLLAND
Dr Samuel Zwetchkenbaum	University of Michigan School of Dentistry, Ann Arbor, USA

www.iadh.org

GLOSSARY

Access	relates to the sociological, psychological and environmental factors affecting a person's use of healthcare services.
Assent	to agree with.
Assessment	an on-going evaluation process aimed at understanding and improving student learning by measuring the learning outcomes in knowledge, skills, attitudes and behaviours.
Attitude(s)	a mental position, feeling or emotion that is reflected in behaviour.
Barrier(s)	factors in a person's environment that, through their absence or presence, limit functioning and create disability. These might include an inaccessible physical environment, lack of relevant assistive technology, negative attitudes of people towards disability, and services, systems and policies that are either non-existent or that hinder involvement.
Behaviour(s)	the response of individuals to particular situations or stimuli.
Behavioural	involving and/or related to behaviour.
Blended Learning	combines face to face classroom methods of learning with computer-mediated activities to form an integrated instructional approach.
Blueprint	links learning outcomes with methods of assessment within a framework.
Caregiver(s)	parent, family member, volunteer or a professional who provides direct care for an individual, sometimes referred to as a carer, a personal assistant or a support worker.
Capacity	highest probable level of functioning that a person may reach in a specific task or activity.
Carer	see caregiver
Case based learning	involves interactive, student-centred exploration of realistic scenarios. Students consider problems from a perspective which requires analysis and strive to resolve questions that have no single right answer.
Classification	arrangement of groups of people or things into categories according to shared characteristics or qualities.
Clinical Management	process of guiding and providing dental care in terms of both the patient/practitioner relationship and in terms of technical skill.

www.iadh.org

Clinical Setting	place in which the purpose is the delivery of medical or dental care. Can include private offices or practices, managed care facilities, community based clinics, or hospitals.
Cognitive Impairment	affecting the ability to think, concentrate, formulate ideas, reason and remember.
Colleague	fellow professional.
Communication	process by which information is exchanged between individuals through a common system of language, symbols, signs or social intercourse.
Communication Impairment	impairment of the ability to exchange information with other individuals, including verbal and non-verbal language, comprehension, speech, hearing and behaviour.
Communication Skill(s)	ability to readily exchange information through a common system of language, symbols, signs or behaviour.
Competence	mastery of relevant knowledge and/or the acquisition of a range of relevant skills to a satisfactory level at a certain point of education e.g. on graduation.
Complex Needs	perceived by the patient or caregiver, and confirmed by a professional, as necessitating specific, advanced skills and/or techniques, over and above those expected to be delivered in a primary care service.
Concept	abstract or generic idea generalised from particular instances; which forms the basis of further learning and research.
Consensus	generally accepted opinion or decision among a group of people.
Consent	voluntary agreement (see valid consent)
Critical Thinking	ability to analyse information.
Curriculum	comprehensive description of an education programme that includes intended programme outcomes . It should include expected methods of learning, teaching, feedback and assessment.
Dental School or Faculty	place offering study programmes leading to degrees in dentistry, also known as a dental faculty.
Dental Treatment	all procedures, primary and comprehensive; preventive and therapeutic that address the dental needs of an individual.

Disability	umbrella term for impairments, activity limitations and participation restrictions. It denotes the negative aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environmental and personal factors).
Domain	field or scope of knowledge or activity.
Educator(s)	person who teaches others; a teacher.
Emerging	coming into being, or to be noticed.
Engage	to involve a person or gain their attention.
Environmental Facilitator	see Facilitator
Environmental Factor	aspects of the external or extrinsic world that have an impact on that person's functioning. They include the physical world and its features, the man-made physical world, relationships and roles, attitudes and values, social systems and services, policies, rules and laws.
Epidemiology	science concerned with the study of the factors determining and influencing the frequency and distribution of disease, injury, and other health-related events and their causes in a defined human population.
Essays	subjective assessment question that requires a comprehensive written answer.
Evidence-based	use of research and scientific studies as a base for determining the best practices in a field.
Exemplar(s)	typical specimen or example of something on which to base future work.
Extended family	group of persons related by descendant or marriage/partnership.
Experiential learning	methodology whereby learners are given a chance to acquire and apply knowledge, skills and feelings in an immediate and relevant setting.
Extended Matching Questions(EMQ's)	consists of lettered statement options followed by a list of numbered scenario/questions all set around a theme. Students are asked to choose the closest matching statements (pairs) for each scenario.
Facilitate	act of making an action or process easy or easier.

Facilitator person, process, environment or influence that through their presence or absence makes an action, behaviour, or process easier or more easily achieved. Facilitators can prevent an impairment or activity limitation from becoming a restriction by improving function and reducing disability.

Factor person, process, environment, influence or action that actively contributes to the production of a result. Absence of a factor can also be facilitating, for example the absence of stigma or negative attitudes. (see environment factors and personal factors).

Faculty see dental school.

Family members of a household and/or a group of close relations. Usually referring to parents, spouse and/or siblings unless otherwise specified.

Feasible likely or able to be put into effect.

Feedback information gained in response to an inquiry.

Formative Assessment(s) assessment activities which are directed at enhancing, facilitating, supporting, encouraging and motivating learning. They aim to inform students of their progress, achievements and performance, and to provide guidance to them (and to inform teachers about student learning, misunderstandings, areas of deficiency/weakness/difficulties, and areas of strength).

Framework structural plan which forms the basis for a project, document or programme

Functioning umbrella term for body functions, body structures, activities and participation. It denotes the positive aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environmental and personal factors).

Generic applicable or referring to a whole group or population rather than something specific.

Guideline indication or outline of policy, conduct, didactic activity or clinical protocol.

Hands-on involving active participation rather than theoretical.

Health Service systems for treating disease, supporting persons with chronic conditions, health promotion, preventive interventions, screening, research and training.

Impairment loss of, or loss of the function of a body part, organ or system (see also sensory, cognitive and communication impairments).

Inclusion social integration – e.g equal participation in society or a health care system.

Inclusive Language   language that deliberately excludes no persons or groups.

Incremental Approach   something gained gradually by regular addition and update.

Innovative   using new methods or ideas.

Interactive learning   two-way transfer of information between a user and a central point of a communication, such as a computer or television or a person.

Inter-professional Liaison   communication and cooperation between professionals who may be of similar or different disciplines.

Knowledge   theoretical understanding of a subject.

Learning Environments   online, e-learning and distance learning via a web-based environment.

Learning outcomes   explicit statements of what a student should know, believe, understand, or be able to do at the end of a learning activity.

Lectures   sharing of information verbally with multiple students in a classroom style.

Lifelong learning   concept of the end of undergraduate training being the start of a lifelong education process; moving from being a competent clinician on completion of training to becoming an expert following clinical and personal maturity.

Mapping   systematic plan which links aspects of the curriculum in order to track what has been learned and assessed at any given time.

Marginalised group   group of individuals who for reasons; physical, intellectual or social; are relegated to an unimportant or powerless position within society or a group.

Medical Factor   factor relating to a disease or health condition.

Mentor   more experienced clinician who assists a student or learner.

Multi-media   combined use of communication media such as television, slides, audio video and interactive computer applications.

Multiple Choice Questions (MCQs)   summative assessment in which students are provided with a question and asked to select one or more choices from a list of answers.

www.iadh.org

Objective Structured Clinical Examination (OSCE)
series of examination 'stations' set up to assess students skills. At each station, students may be asked to carry out a procedure which may or may not involve 'patients', who may be healthy volunteers or mock patients/actors. Students are observed and scored by examiners with checklists and may also have to answer questions based on their findings and their interpretations.

Oral Function
physiological functions of biting, chewing, speaking, breathing, communicating, smelling, tasting, touching, expressing, digesting, salivating, swallowing, smiling, kissing etc..

Oral Health
standard of health of the oral and related tissues which enables an individual to eat, speak and socialise without active disease, discomfort or embarrassment and which contributes to general well-being.

Oral Health Education
aimed at improving oral health through the acquisition of knowledge, eventually leading to motivation and finally, to behavioural change according to the health belief model.

Oral Health Promotion
combination of planned social actions and learning experiences designed to enable people to gain control over the determinants of health and social behaviours and the conditions that affect their oral health status and that of others.

Participation
person's involvement in a life situation.

Patient
any individual receiving or registered to receive medical or dental treatment.

Patient-centred care
health care that ensures that decisions respect patients' wants, needs, and preferences and that patients have the education and support they need to make decisions and participate in their own care.

Personal factor(s)
contextual factors that relate to the individual such as age, gender, social status, life experiences etc.

Portfolio(s)
collection of student's work which evidences how the student has met the specified learning outcomes. A typical portfolio consists of clinical cases selected by the student, including the reasons for selecting these cases and self-reflection on the learning process.

Primary Health Care Service(s)
local, general and routine services which are the first point of contact between the public and the health system, e.g. general dental practitioner, 'family dentist', general dentist, dentist with special interest.

Problem Based Learning
student-centred instructional strategy which consists of carefully designed problems that challenge students to use problem solving techniques, self-directed learning strategies, team participation skills, and disciplinary knowledge.

www.iadh.org

Professional Regulatory Body	organisations that set the standards for, and regulate the standards of entry into, particular profession(s) and are authorised to accredit, approve or recognise specific programmes leading to the relevant professional qualification(s) - for which they may have a statutory or regulatory responsibility.
Protocol	pre-determined standard for carrying out a procedure, scientific experiment or a course of medical treatment.
Reflective Clinical Practice	activities in which individuals engage in a process of continuous learning by exploring and revisiting their clinical experiences in order to develop better insight and understanding.
Reliability	measure of how consistent the assessment is. A reliable assessment will produce the same results on re-test with the same or similar populations who have similar knowledge and ability in a similar circumstance.
Resource(s)	see teaching resources
Risk Assessment	key component of the overall assessment of the individual's risk for oral disease and the first step in a multi-component oral health promotion program.
Role Play	to assume or act out a particular role.
Scope	extent of the area or subject matter that something deals with, or to which it is relevant.
Self-reflection	part of a formative assessment process which allows students to assess their own performance. It can be valuable in helping students to develop self-reflection, critique and judgment and ultimately, students learn how to be responsible for their own learning.
Seminar	class in which a topic is discussed by a teacher and a small group of students.
Sensory Impairment	abnormality, or partial or complete loss of one or more of the five senses: audition, taste, smell, touch or sight.
Service Structure	organisational structure of a health care service that includes the means by which revenues are raised to finance the system, the actual service component (prevention/ treatment) and training arrangements.
Short Answer Questions	open-ended questions that require students to create an answer to assess the knowledge and understanding of a topic.
Simple Clinical Treatment	treatment expected to be provided in a primary health care service.

www.iadh.org

Simulation
creates a virtual activity that is "real" so there is little difference between the simulated environment and the real one, and the same kind of learning experience can take place.

Skills
practised ability or facility acquired through an effective application of knowledge.

Social Determinants of Health
conditions in which people are born, grow, live, work and age. The ten major determinants of health are: social gradient, stress, early development, social exclusion, work environment, unemployment, social support, addiction, nutrition and transport.

Social Facilitator
person, process or environment that makes social integration easier or more easily achieved.

Social Factor
see factor

Special Care Dentistry
dentistry for individuals with a disability or activity restriction that directly or indirectly affects their oral health, within the personal and environmental context of the individual. Depending on service structure, people requiring special care may also include persons living in a social, cultural or environmental context that directly or indirectly affects their oral health, in relation to the social determinants of health and to barriers experienced in accessing health care and prevention.

i.e. depending on local environmental context (service structure), this population may include patients of all ages, medically compromised patients, prison populations, recent immigrants or refugees, homeless persons, persons with dental fear or phobia, travellers etc. The majority of these patients will receive care in the primary health care sector and a minority with more complex needs will require specialist care.

Stakeholders
people or organisations who may participate in and benefit from decisions made by enterprises in which they have a interest.

Student-centred learning
students are active participants in their learning; they learn at their own pace and use their own strategies; they are more intrinsically than extrinsically motivated; learning is more individualized than standardized. Student-centred learning develops learning how-to-learn skills such as problem solving, critical thinking, and reflective thinking.

Summative Assessment(s)
assessment activities which aim to provide a measure and record of the quality and extent of student achievement or performance against the intended learning outcomes.

Supported : Decision Making
process by which a vulnerable individuals can make their own decisions with support and advice from family, friends and caregivers.

Systemic Conditions
health condition affecting a body system e.g the digestive system, the cardiovascular system, the respiratory system etc.

www.iadh.org

Tailored Oral Health Education appropriate and effective oral health education that is adapted to the individual requirements of the person.

Teaching Resources collection of material to enhance the teaching and learning experience.

Team Work combined action of two or more persons working together, including professionals, patients, caregivers and other facilitators.

Terminology body of words used with a particular technical application in a subject of study, theory or profession.

Transferable skills skills that are learned in one situation and can be transferred or applied to another situation, such as communication skills, and team working skills.

Triangulation use of more than one approach to assessment in order to enhance confidence in the validity of the findings.

Tutor member of staff responsible for the teaching and supervision of students.

Undergraduate student in a university or faculty who is studying for their first dental degree, also may be referred to as a pre-doctorate.

Valid Consent voluntary agreement by an individual to a surgical or medical procedure or participation in a clinical or epidemiological study after achieving an understanding of the relevant facts and the risks involved.

Validity measure of how the assessment aligns with the intended learning outcomes, that is if it is assessing what it is intended to assess. A valid assessment will give an accurate estimate of the actual skills learned by the student.

Virtual Learning environments learning environment where teacher and student are separated by time or space, and course content and assessments are delivered through course management applications, multimedia resources, the Internet, videoconferencing etc.

Vulnerable Groups groups that experience a higher risk of social exclusion than the general population. Ethnic minorities, migrants, disabled people, the homeless, those struggling with substance abuse, and isolated elderly people often face difficulties that can lead to further social exclusion

Workplace-based learning and assessment Learning 'how to do the job' by 'doing the job'. Different workplaces provide opportunities for participation in activity supported learning. It can involve members of the whole dental team (including patients) in the training process. The cultures and practices in the workplace help students 'make sense' of what they see, hear, sense and do.

www.iadh.org